



WASHINGTON STATE DEPARTMENT OF ECOLOGY
ENVIRONMENTAL ASSESSMENT PROGRAM
LABORATORY ACCREDITATION SECTION

**APPLICATION
for
ENVIRONMENTAL LABORATORY ACCREDITATION**

Reference: Chapter 173-50 WAC

Section 1 – General Information

1. Name of Lab

**2. Lab Mailing
Address**

Number and street or PO Box

City

State

ZIP

3. Lab Location

[If different than
mailing address]

Number and street, city, and state

4. Accreditation

Point of Contact

Name

Telephone

Position

Fax number

E-mail address

If you require this document in an alternate format, please contact the Lab Accreditation Section at 360 895-6145 or TTY 711 or 1-800-833-6388.

Section 2 – Directions and PT Requirements

• Directions

1. Review the below section on Proficiency Testing (PT) Sample Requirements, and complete paragraph 2.
2. Read and sign the “Certificate of Applicant.”
3. Complete pages three through eleven.
4. Refer to the instructions at the bottom of this page for submitting your lab’s application.

• Proficiency Testing (PT) Samples:

1. Requirements:

- Your lab must submit **TWO** PT sample results each year for the analytes that require PTs. Submit one result during the **first half** of the year and another one during the **second half** of the year.
- To determine which parameters require a PT, refer to the enclosed report “Current Parameters.” If there is an “**X**” in the column “**PT Required.**” you **MUST** do PTs for that parameter.
- **Exception:** For drinking water microbiology determinations, the annual requirement is **one** PT per year. For non drinking water microbiology determination, no PTs are required.

2. Studies Completed

In the spaces below, list the PT studies your lab has done during the past 12 months. Include a copy of each evaluation report with the application.

<u>Date of report</u>	<u>Provider of Samples</u>	<u>Study Number</u>
_____	_____	_____
_____	_____	_____

• Certificate of Applicant:

I certify that I have read Chapter 173-50 WAC as it pertains to accreditation of the laboratory identified on page one, and that I am aware of no misrepresentations concerning that laboratory in this application. Chapter 173-50 WAC and the *Procedural Manual for the Environmental Laboratory Accreditation Program* are available on the internet. The internet address is <http://www.ecy.wa.gov/biblio/0203055.html>

Signature of applicant/designated representative

Position

Date

• Submission Instructions:

Send the following items to the address below.

1. the completed application
2. a check, money order, or purchase order made payable to the Department of Ecology
3. a copy of the each of the PT evaluation reports, and
4. the lab’s Quality Assurance Manual

Mailing Address: Department of Ecology
Cashiering
PO Box 5128
Lacey, WA 98509-5128

Shipping Address: Department of Ecology
Cashiering
300 Desmond Drive
Lacey, WA 98503

For questions regarding this renewal contact:

Department of Ecology
Lab Accreditation Section
PO Box 488
Manchester, WA 98353

Telephone: (360) 895-6145 FAX: (360) 895-6180 E-mail: cosc461@ecy.wa.gov

SECTION 3 – Parameter Listing

Directions

1. Check the column to the left of each analyte the lab wants to request.
2. Write the requested method or methods in the appropriate matrix column or columns.
3. Write any parameter that is not listed at the end of the appropriate category.
4. Calculating the fee for the same method requested in different matrices:
 - a. The fee is charged once. For example, one fee is charged for nitrate by EPA 300.0 in Non Potable Water and Drinking Water.
 - b. Put an “X” in the “Fee” column to indicate where the fee will be charged.
5. If two or more different methods for the same analyte are requested, put two or more Xs in the “Fee” column.
6. Total the number of “Xs” in each matrix.
7. Calculate the category fee in the “Fee Calculation” at the end of each category.

Chemistry I – General Chemistry

√	Analyte	Non Potable Water		Drinking Water	
		Method(s)	Fee	Method(s)	Fee
	Ammonia				
	Alkalinity				
	Biochemical Oxygen Demand (BOD) & Carbonaceous BOD				
	Bromate				
	Bromide				
	Calcium				
	Chemical Oxygen Demand				
	Chlorate				
	Chloride				
	Chlorine, Free				
	Chlorine, Ttl Residual				
	Chlorite				
	Color				
	Cyanide, Total				
	Dissolved Oxygen				
	Fluoride				
	Hardness, Total				
	Nitrate				
	Nitrate + Nitrite				
	Nitrite				
	Nitrogen, Ttl Kjeldahl				
	Orthophosphate				
	pH				
	Silica				
	Solids, Total				
	Solids, Ttl Dissolved (TDS)				
	Solids, Ttl Suspended (TSS)				
	Solids, Ttl Volatile				
	Specific Conductance				
	Sulfate				
	Total Organic Carbon				
	Turbidity				

**TOTAL “Xs”
Non Potable Water**

**TOTAL “Xs”
Drinking Water**

Chemistry I – Fee Calculation

Check the appropriate box for each requested matrix and calculate the fee

MATRIX

- | | | | | | | |
|----------------------------|--------------------------|---------------------------------------------------------------------------------------------------------|---|---------|-------|----------|
| ● Non Potable Water | <input type="checkbox"/> | If 17 or fewer parameters are requested, complete the following
Number of parameters requested _____ | X | \$65.00 | Total | \$ _____ |
| | <input type="checkbox"/> | If 18 or more parameters are requested, the fee is the maximum \$1,150.00 | | | | \$ _____ |
| ● Drinking Water | <input type="checkbox"/> | If 5 or fewer parameters are requested, complete the following:
Number of parameters requested _____ | X | \$60.00 | Total | \$ _____ |
| | <input type="checkbox"/> | If 4 or more parameters are requested, the fee is the maximum \$305.00 | | | | \$ _____ |

Total Fee for Chemistry I – Add matrix fees from above	\$ _____
--------------------------------------------------------	----------

Microbiology

All method references are Standard Methods 20th Edition unless noted otherwise. Accreditation is **not currently** offered for analyte/method/matrix combinations where matrix column is shaded.

For this section only:

- (1) For each requested method, place an “X” or write “Yes” in the appropriate column or columns for Non Potable Water, Drinking Water, or Solid & Chemical Material.
- (2) In the “Assign Fee” column, place an “X” in the “Fee” column to indicate the matrix in which to assess the fee. Each method description is considered one method for fee calculation.
- (3) **Reminder:** If a method is requested in more than one matrix, a fee is charged in **only one** matrix.

Coliform (Total and Fecal) and E.coli: Detection and Enumeration Methods

Analyte	Method Description(s)	Method Reference #	Non Potable Water	Drinking Water	Solid & Chemical Material	Fee		
						NP	DW	S
Total & Fecal Coliform Detection	MTF-LTB/BGB & EC Broth	SM 9221B1,2 and E1						
	SVF-PA Broth & EC Broth	SM 9221D1,2 and E1						
	MF-Endo/BGB and EC Broth	SM 9222B2,5 and 9221E1						
Total Coliform & E.coli Detection	MTF-LTB/BGB & EC Mug	SM 9221B1,2 and F						
	SVF-PA Broth & EC Mug	SM 9221D1,2 and F						
	MF-Endo/BGB & EC Mug	SM 9222B2,5 and 9221F						
	MF-Endo/BGB & NA Mug	SM 9222B2,5 and G1c1						
	MF-Endo/BGB & EC Mug	SM 9222B2,5 and G1c2						
	MF-MI Agar	EPA 1604						
	MF-mColiBlue	Hach mColiBlue						
	MF-Chromocult Agar	EM Science Chromocult						
	Enzyme Substrate-Colilert	SM 9223B						
	Enzyme Substrate-Colisure	SM 9223B						
	Enzyme Substrate-EColite	Hach Ecolite						
	Enzyme Substrate-Readycult	EM Science-Readycult						
Total & Fecal Coliform Enumeration	MTF serial dilution (LTB/BGB & EC Broth)	SM 9221B1,2, C and E1						

Analyte	Method Description(s)	Method Reference #	Non Potable Water	Drinking Water	Solid & Chemical Material	Fee		
						NP	DW	S
	MF-Endo/BGB and EC Broth	SM 9222B2,5,6 and 9221E1						
Total Coliform & E.coli Enumeration	MTF serial dilution (LTB/BGB & EC Mug)	SM 9221B1,2, C and F						
	MF-Endo/BGB & EC Mug	SM 9222B2,5,6 and 9221F						
	MF-Endo/BGB & NA Mug	SM 9222B2,5,6 and G1c1						
	MF-MI Agar	EPA 1604						
	MF-mColiBlue	Hach mColiBlue						
	MF-Chromocult Agar	EM Science Chromocult						
	Enzyme Substrate-Colilert	SM 9223B						
	Enzyme Substrate-Colisure	SM 9223B						
	Enzyme Substrate-ReadyCult	EM Science-ReadyCult						
Fecal Coliform ONLY Enumeration	MTF serial dilution A-1	SM 9221E2						
	MTF-serial dilution (LTB&EC)	SM 9221B1,2 and E1						
	MF-mFC	SM 9222D						
Total Coliform ONLY Enumeration	MTF-LTB/BGB/EMB/gram stain	EPA 9131						
	MF-Endo 2 step enrichment	EPA 9132						
	MF (Endo/CO&ONPG/multi test)	SM 9222B2,5,6						
Fecal Coliform & E.coli Enumeration	MF-mFC/NA Mug	SM 9222D & G1c1						
E.coli ONLY Enumeration	MF-mTEC/Urea	SM 9213D						
	MF-modified mTEC	EPA 821/R-97/004						

Other Methods

Analyte	Method Description(s)	Method Reference #	Non Potable Water	Drinking Water	Solid & Chemical Material	Fee		
						NP	DW	S
Fecal Strep/Enterococcus WW/sediments (raw and chlorinated)	MTF-Azide Dextrose/PSE/NaCl 6.5%	SM 9230B						
	MF-mE/EIA substrate	SM 9230C2ab,3,4,&5						
Fecal Strep/Enterococcus Recreational water	MF-mEnterococcus	SM 9230C2c,3,4,5,6						
	MF-mEI	EPA 1600						
	MF	Dufour 1980						
Enterococcus	Enterolert	Enterolert						
Heterotrophic Bacteria	HPC-Pour Plate	SM 9215B						
	HPC-Spread Plate	SM 9215C						
	HPC-MF	SM 9215D						
	SimPlate	Simplate						
Klebsiella	MF-mFCIC Agar	SM 9222F2a3						
	MF-mKleb Agar	SM 9222F2b3						
Pseudomonas Aeruginosa	MF mPA	SM 9213E						
	MTF-Asparagine Broth	SM 9213F						
Salmonella Detection	Concentrate/enrich/select/I D	SM 9260B1a,b,c,or d, 2,3,and 4						

SECTION 5 – Personnel and Equipment Data

Part A – Personnel Data

NAME(LAST)	(FIRST)	(MIDDLE OR MAIDEN)	DATE MO. DAY YR.
------------	---------	--------------------	---------------------------

EDUCATION: Check highest level attained to date:

☐ H.S. GRADUATION ☐ B.A./B.S. ☐ M.A./M.S. ☐ Ph.D./Sc.D./M.D.

ACCREDITED COLLEGE OR UNIVERSITY ATTENDED									
NAME AND LOCATION	MAJOR ----- MINOR	CREDIT HOURS EARNED	Q* S	DEGREE AND DATE GRANTED	CREDIT HOURS IN:				
					Biol.	Micro.	Phy.Sci.	Chem.	Math.

*INDICATE QUARTERS OR SEMESTER HOURS. IF TRANSCRIPTS SUBMITTED, OMIT ALL BUT FIRST COLUMN.

CERTIFICATION: If you are certified by any recognized special board or society, list below:

CERTIFICATION TITLE	CERT.NO.	YEAR RECEIVED	GRANTING BOARD OR SOCIETY

TRAINING OTHER THAN COLLEGE/UNIVERSITY: Internship, Traineeship, Military Training, etc.

NAME AND LOCATION OF INSTITUTION	DATES ATTENDED MO./YR.	NO.HRS. PER WEEK	CERT. OR DIPLOMA GRANTED	DIRECTOR

Continued on next page

Training & Experience Record, cont.

ADDITIONAL PROFESSIONAL TRAINING: (Workshops, Seminars, Courses)			
SUBJECT	TOTAL TIME	YEAR	SPONSOR OF WORKSHOP, SEMINAR OR COURSE

EXPERIENCE: Please list only those positions relevant to your present occupation. Begin with the earliest position; the last entry should be your present position. Attach another sheet if necessary.

FIRM NAME	NAME OF DIRECTOR					
SPECIFIC DUTIES	FROM	MO.	YR.	TO	MO.	YR.
	FULL TIME <input type="checkbox"/>		PART TIME <input type="checkbox"/>			
	HOURS PER WEEK					

FIRM NAME	NAME OF DIRECTOR					
SPECIFIC DUTIES	FROM	MO.	YR.	TO	MO.	YR.
	FULL TIME <input type="checkbox"/>		PART TIME <input type="checkbox"/>			
	HOURS PER WEEK					

FIRM NAME	NAME OF DIRECTOR					
SPECIFIC DUTIES	FROM	MO.	YR.	TO	MO.	YR.
	FULL TIME <input type="checkbox"/>		PART TIME <input type="checkbox"/>			
	HOURS PER WEEK					

FIRM NAME	NAME OF DIRECTOR					
SPECIFIC DUTIES	FROM	MO.	YR.	TO	MO.	YR.
	FULL TIME <input type="checkbox"/>		PART TIME <input type="checkbox"/>			
	HOURS PER WEEK					

Part A – Personnel Data - *Continued*

Fill in the following sheet (or a substitute) for all technical personnel in the lab. Use additional sheets if necessary.

Type Position	Name	Technical specialty	Date Hired	Summary of education/Experience (e.g., BS Chem 78, 12 yrs anal lab)
Lab Manager				
QA Coordinator				
Supervisors				
Professional/ Technical Staff				

Part B – Equipment Data

Indicate major items of analytical equipment present in the lab and used in the methods for which accreditation is requested. Use additional sheets if necessary to add items. Equipment inventories providing essentially the same information may be substituted for the list below.

CHEMISTRY

<u>Type of Equipment</u>	<u>Manufacturer</u>	<u>Model No.</u>	<u>Qty.</u>
pH meter	_____	_____	_____
Turbidimeter	_____	_____	_____
Colorimeter/Spectrophotometer	_____	_____	_____
Ion Chromatograph	_____	_____	_____
Microscope			
General Purpose	_____	_____	_____
Polarized Light	_____	_____	_____
Phase Contrast	_____	_____	_____
Scanning Electron	_____	_____	_____
Transmission Electron	_____	_____	_____
Other (specify)	_____	_____	_____
Analytical Balance	_____	_____	_____
Conductivity Meter	_____	_____	_____
Dissolved Oxygen Meter	_____	_____	_____

MICROBIOLOGY

<u>Type of Equipment</u>	<u>Manufacturer</u>	<u>Model No.</u>	<u>Qty.</u>
Incubators			
Air	_____	_____	_____
Water Bath	_____	_____	_____
Heat Block	_____	_____	_____
Sterilizers			
Autoclave	_____	_____	_____
Hot Air Oven	_____	_____	_____
Refrigerator	_____	_____	_____

Part B – Equipment Data. *Continued*

<u>Type of Equipment</u>	<u>Manufacturer</u>	<u>Model No.</u>	<u>Qty.</u>
Media Prep			
Analytical Balance			
Reference Weights			
pH meter			
Dispensing machine			
Thermometers			
NIST			
Mercury			
Alcohol			
Lab Pure Water System			
Still			
Deionizer			
Reverse Osmosis			
Carbon Adsorption			
Filtration/Ultra filtration			
UV			
Conductivity Meter			
Dishwasher			
Colony Counter			
Sampling/Testing Containers			
Membrane Filtration			
Manifold			
Funnels			
Filters			
Microscope			
UV Lamp for Enzyme Substrate Testing			